Alicia Barton, President and CEO New York State Energy Research and Development Authority (NYSERDA) Fiscal Year 2018-2019 Joint Budget Hearing Testimony February 27, 2018

Good morning, Chair Young, Chair Weinstein, and members of the Committees. Thank you for the opportunity to testify before you today. I am Alicia Barton, President and CEO of the New York State Energy Research and Development Authority (NYSERDA). I joined NYSERDA a little over six months ago and appreciate this opportunity to appear before the Committees for the first time and to working with the Legislature on the critical climate and energy issues facing our state.

Governor Andrew M. Cuomo's resolute commitment to fight climate change can be seen in the nation-leading policies that New York has implemented in recent years and is working hard to execute now. Clean energy is a cornerstone of those efforts and Governor Cuomo's Reforming the Energy Vision (REV) strategy is transforming our energy system into one that is more affordable, resilient, cleaner, and better able to serve all New Yorkers. Progress is being made each day as more and more consumers choose clean energy solutions. The number of solar, wind, and energy efficiency projects is growing all across the state, demonstrating New York's commitment to the energy system of the future, while driving the State's economy and creating good paying jobs.

Our work at NYSERDA is critical to enabling this transition of the State's energy system- and I will highlight a few of our most important initiatives.

Advanced Energy Storage has been, and will continue to be, a particular emphasis for NYSERDA. Consistent with the Governor's recent announcement of a nation-leading 1500-megawatt goal for deployment of energy storage by 2025 and guided by the framework agreed to with the legislature, this year NYSERDA will work with our partners to establish policies that will enable the energy storage industry to reach the State's goal. This process will be informed by New York's forthcoming energy storage roadmap, being developed by NYSERDA and The Department of Public Service (DPS), and will look to market participants to consider mechanisms that will maximize the benefits of energy storage. A recent study cited jobs in New York's energy storage sector grew 30 percent from 2012 through 2015, to almost 3,900 jobs. By

2030, this sector has the potential to grow to nearly 30,000 jobs, resulting in \$8 billion in global revenues for New York firms.

Offshore wind deployment, which is important to meet the Governor's goal that 50 percent of the State's electricity come from renewable resources by 2030, is also a high priority for NYSERDA. The Governor's commitment of 2.4 gigawatts of offshore wind power by 2030, enough to power more than 1 million New York households, and the plan to solicit for at least 800 megawatts of offshore wind energy in 2018 and 2019, are driving the successful deployment of this resource. To achieve that important goal, NYSERDA recently issued the State's Offshore Wind Master Plan and also proposed to the Public Service Commission options for the procurement of offshore wind resources, which will lead to the responsible and cost-effective deployment of offshore wind.

NYSERDA is in the process of finalizing awards of its 2017 solicitation for large scale renewables, which is the largest purchasing commitment to renewable energy by any state in the country, including utility scale wind, solar, and hydroelectric projects, among others. We are pleased to have seen a robust response to the solicitation, demonstrating strong private sector interest in developing and investing in renewable energy in New York.

We are a little over a year and a half into the Clean Energy Fund (CEF) implementation effort, designed to deliver on the commitment to reduce ratepayer collections, drive economic development, and accelerate the use of clean energy and energy innovation. NYSERDA has filed and the Department of Public Service has approved over 56 CEF "investment plans" which describe the market interventions and programs NYSERDA is executing, all of which are available on NYSERDA's website. NYSERDA has already been able to program approximately 49 percent of the CEF Market Development and Innovation and Research budget, and from those plans, we estimate that we will meet 49% of the electric energy efficiency goal and over 200% of the fuel energy efficiency goal. These plans are also expected to meet 45% of the overall 55% of CO2 emissions reductions goal identified for the CEF. Further, the CEF is on track to meet anticipated renewable energy goals, with nearly 1.6 GW of installed and pipeline solar, bringing the total expected CO2 emission reductions up to 63% of the overall goal.

Under NY-Sun, the State's \$1 billion investment in solar deployment, solar power in New York increased more than 1,000 percent from December 2011 to October 2017, leveraging more than \$2.7 billion in private investment. There are now more than 12,000 people engaged in

solar jobs across the State. To further help low-income New Yorkers realize the benefits of solar power, NYSERDA will assist in securing community solar subscriptions for low-income customers to deliver cost savings and clean energy to more than 10,000 low-income energy consumers through community solar initiatives.

NY Green Bank, the largest green bank in the nation and a division of NYSERDA, also continues to support New York State's transition to a more sustainable, clean energy economy by providing financing support for technologically and economically feasible clean energy projects. In March of 2017, New York Green Bank reached self-sufficiency with revenues exceeding operating expenses, a full year earlier than projected, a true indicator of its success. With over \$2.1 billion in investment proposals received through December 31, 2017, it has committed \$440.9 million, supporting a total investment of up to \$1.59 billion in the clean energy marketplace.

The Drive Clean Rebate has already supported New Yorkers' purchases of more than 4,000 electric vehicles. EV sales increased approximately 70 percent in New York in 2017, outpacing the national average. To support the expansion of electric vehicles on the road in New York, over 1,900 EV charging stations have been installed through the Charge NY initiative.

While these and NYSERDA's other initiatives are aimed at reducing greenhouse gas emissions, they are also meant to spur the State's clean energy economy and create good jobs. In November 2017, NYSERDA released its first-ever Clean Energy Industry Report, which showed that 146,000 New Yorkers are employed in the state's clean energy sector. Clean energy jobs are growing at a rate of more than two times the state average, with a growth rate of 3.4 percent from December 2015 to December 2016. These results are extremely exciting and provide evidence that New York's investments in clean energy are a smart bet—the investments are already paying off for workers and the state's economy.

The 2018-19 Executive Budget recommends \$19.7 million funding for NYSERDA to continue energy research and development, and statewide energy planning and analysis activities. This funding supports critical research and development to promote energy efficiency, encourage economic development, expand the use of New York State's renewable energy resources, and reduce adverse environmental effects associated with energy production and use. These funds are essential to NYSERDA's Fuel NY responsibilities, which provide critical

support to fuel access at gas stations during extreme weather events, and to maintain fuel reserves across the State.

For nearly four decades, NYSERDA has protected New York State interests at the West Valley Demonstration Project in Cattaraugus County. The Executive Budget recommends \$17 million for ongoing nuclear waste cleanup at West Valley, an increase of approximately \$1.4 million over last year's budget. Our costs at West Valley are largely dictated by a federal match requirement, and this reflects the funding level necessary to meet the federal appropriation during the 2018-2019 federal fiscal year.

We are proud of what has been achieved thus far in New York with your help, and I am proud of NYSERDA's leadership in advancing clean energy solutions on behalf of the State, but we are also aware that we have reached a critical moment in our State's—and our planet's—ability to deal with threats posed by global climate change. Climate change is not just an energy issue, but one that reaches across all sectors of our economy, and we must continue our work to address the global imperative to further enable the fast-growing clean energy economy, which will in turn reduce greenhouse gas emissions to protect our natural resources and provide long-term economic development opportunities for the State.

This concludes my opening remarks. I would be happy to take any questions that you may have.